Bently Nevada 190501-10-00-02 Manual

Brand	Bently Nevada
Product Series	190501
Product Type	Velomitor CT Velocity Transducer

Description

Manufacturer : Bently Nevada

Product No. : 190501-10-00-02
Product Type : Velomitor CT Velocity Transducer

Made in U.S.A

190501

Mounting Hardware Option :1 0 Plate Stud M6x1 to M6x1with 3/8- in 24 adapter
Connection Option : 0 0 MIL-C-5015 connection interface

Agency Approval Option : 0 2
CSA/NRTL/C (Class I, Division 1),
ATEX/IECEx/CSA (Class I, Zone
0/1)

Weight : 0.297 Kg

Electrical
Sensitivity 3.94 mV/mm/s (100 mV/in/s)
±5%.
Frequency
Response
3.0 Hz to 900 Hz
(180 to 54,000 cpm) ±1.0 dB
1.5 Hz to 1.0 kHz
(90 to 60,000 cpm) ±3.0 dB
Temperature
Sensitivity
-8% to +5% typical over the
operating temperature range
Transverse
Response
Less than 5% of the axial
sensitivity.
Amplitude

Linearity
±2% to 63.5 mm/s pk
(2.5 in/s pk)
Mounted
Resonant
Frequency
9 kHz, minimum (stud
mounted, except quick
disconnect)
Output Bias
Voltage
10.1 Vdc ± 1.0 Vdc, Pin A
referenced to Pin B
Dynamic
Output
Impedance
<400 Ω typical
Broadband 0.229 mm/s (0.009 in/s) pk.
Base Strain
Sensitivity
0.43 mm/s/µstrain (0.017
in/s/µstrain).
Grounding Internal electronics are isolated
from case.
Maximum
Cable
Length
305 metres (1,000 ft.) of cable
(part number 02173006) with
no degradation of signal.

Environmental Limits
Operating
Temperature
-40°C to +85°C
(-40°F to +185°F).
Storage
Temperature
-40°C to +100°C
(-40°F to +212°F).
Shock Limit 5000 g pk, maximum.
Humidity
Limit
100% condensing,
non-submerged.
Magnetic
Field
Susceptibility
<0.0068 mm/s/gauss (0.268
mil/s/gauss) @ 50 gauss, 50-

60Hz

Mechanical
Weight <297 g (10.5 oz.), typical.
Mounting
Surface
33 mm diameter (1.3 in
diameter).
Height 82 mm (3.2 in).
Case
Material 316L stainless steel
Connector 2-pin 316L stainless steel MIL-C5015, top.
Mounting
Torque
4.5 N-m ± 0.6 N-m (40 in–lbf ± 5
in-lbf).
Polarity
Pin A goes positive with respect
to Pin B when velocity is from
base to top of the transducer.
Mounting
Angle Any orientation.

190501 (Agency Approval Options 01
through 04)
Intrinsically
Safe
Ex ia IIC T4:
Class I, Div 1, Groups A, B, C, D.
Class II, Group E, F and G
Class III
AEx ia IIC T4:
Class I, Div 1, Groups A, B, C, D;
Class II, Groups E, F, G
Class III
Install per drawing 167536
T4 @ -40°C ≤ Ta ≤ +100°C
(-40°F ≤ Ta ≤ +212°F)
Intrinsically
Safe and
NonIncendive
Ex nL IIC T4
Class I, Division 2, Groups A, B, C
and D
AEx nA T4
Class I, Division 2, Groups A, B, C
and D
Install per drawing 167536
T4 @ -40°C ≤ Ta ≤ +100°C
(-40°F ≤ Ta ≤ +212°F)